



USS ENVIRONMENTAL AFFAIRS DEPARTMENT  
600 Grant Street, Room 2287  
Pittsburgh, PA 15219-2749

FAX: 412-433-5920 (Steelcom 8-723-5920)

TO: JAMES HAGEDORN

LOCATION: USEPA - R III

DATE: 8/16/94

FROM: LORRAINE GUEVARA

PHONE:

NO. OF PAGES TO FOLLOW: 3

MESSAGE: Hard copy to follow -  
Thanks!



U. S. Steel  
600 Grant Street  
Pittsburgh, PA 15219-2749  
412 432 1121

Environmental Affairs Department

August 16, 1994

Mr. James W. Hagedorn (via Telefax)  
U. S. EPA, Region III  
Air Enforcement Branch  
841 Chestnut Building  
Philadelphia, PA 19107

Re: Notice of Violation Issued to USX Corporation for the  
Clairton and Edgar Thomson Plant Operations  
AFS No. 42-003-00032 and No. 42-003-00202

Dear Mr. Hagedorn:

Per your recent request, this letter provides additional cost detail for the proposed Continuous Emission Monitoring (CEM) systems for NO<sub>x</sub> at Clairton Works and Edgar Thomson Plant. Breakdowns for capital costs and annual operation and maintenance costs are provided for each facility.

#### A. CAPITAL COSTS

##### 1. Edgar Thomson Plant - Boiler Nos. 1, 2 and 3

- \* Engineering 18,000
- \* Purchase Equipment 147,725

##### Installation

- \* Stack platforms, fabricate and install 25,000
- \* Set up, panels, equipment, sampling tubing, wiring 40,000
- \* Heat trace tubing 16,000
- \* Calibration gas regulators 1,500
- \* Calibration gas 5,000
- \* Air conditioned enclosure 6,000
- \* Installation supervision 1,600

##### Training and Certification

- \* Training 3,300
- \* Certification 12,600

##### Misc.

- \* Contingency - 15% 40,000
- \* Spares 50,000

TOTAL \$366,245

2. Clairton Works - Boiler Nos. 1 and 2

- \* Engineering 17,000
- \* Purchase Equipment 140,000

Installation

- \* Stack platforms, fabricate and install
- \* Set up, panels, equipment, sampling tubing, wiring
- \* Heat trace tubing
- \* Calibration gas regulators, calibration gas
- \* Air conditioned enclosure
- \* Installation supervision

SUBTOTAL 60,000

Operation and Training

- \* Training 5,000
- \* Certification 12,000

Misc.

- \* Contingency 20,000
- \* Spares 50,000

TOTAL \$304,000

3. Clairton Works Battery "B"

- \* Engineering 15,000
- \* Purchase Equipment 140,000

Installation

- \* Stack platforms, fabricate and install
- \* Set up, panels, equipment, sampling tubing, wiring
- \* Heat trace tubing
- \* Calibration gas regulators, calibration gas
- \* Air conditioned enclosure
- \* Installation supervision

SUBTOTAL 70,000

Operation and Training

- \* Training 5,000
- \* Certification 10,000

Miss:

• Contingency	25,000
• Spares	25,000
TOTAL	\$290,000
Total Capital Costs - 6 CEMs	\$960,245

**B. ANNUAL OPERATION AND MAINTENANCE**

U. S. Steel currently does not have any NOx CEMs in place, thus annual operation and maintenance (O & M) costs are estimates based on compliance with requirements specified in the PA DER Continuous Source Monitoring Manual and 40CFR60, Appendix F. The total O & M costs are estimated to be \$200,000 per year, or \$100,000 per facility, which includes the following:

- Annual certification
- Daily system check
- Quarterly calibration checks
- Required preventive maintenance
- Record keeping and reporting

Please contact me (412/433-5918) if you require additional information.

Very truly yours,



Lorraine E. Guevara  
Sr. Environmental Engineer

C: J. Pezze -- PA DER

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